

## breakout ABSTRACT

Abstract No. 36

### TITLE

## HEALTH AND ENVIRONMENT LINKED FOR INFORMATION EXCHANGE (HELIX)-ATLANTA: A CDC-NASA JOINT ENVIRONMENTAL PUBLIC HEALTH TRACKING COLLABORATIVE PROJECT

### TRACK

#### Network Content

### OBJECTIVES

This presentation will provide information on results from the HELIX-Atlanta project as related to how NASA remote sensing data is being used to derive information on particulate matter over the Atlanta metropolitan area. These data are being used to model surface estimates of particulate matter that can be linked with clinic visits for asthma. This presentation will also focus on the methods we are using for characterizing exposure to particulate matter for the Atlanta metropolitan region that could be used in on-going environmental public health surveillance.

### SUMMARY

As part of the National Environmental Public Health Tracking Network (EPHTN), the National Center for Environmental Health (NCEH) at the Centers for Disease Control and Prevention (CDC) is leading a project in collaboration with the NASA Marshall Space Flight Center (NASA/MSFC) called Health and Environment Linked for Information Exchange (HELIX-Atlanta). HELIX-Atlanta's goal is to examine the feasibility of building an integrated electronic health and environmental data network in five counties of metropolitan Atlanta, GA. Under HELIX-Atlanta, pilot projects are being conducted to develop methods to characterize exposure; link health and environmental data; analyze the relationship between health and environmental factors; and communicate findings. NASA/MSFC is working with CDC to combine NASA earth science satellite observations related to air quality and environmental monitoring data to model surface estimates of particulate matter whose aerodynamic diameter is less than or equal to 2.5 micrometers (PM<sub>2.5</sub>) concentrations that can be linked with clinic visits for asthma. From 1999-2000 there were over 9,400 hospitalizations per year in Georgia with asthma as the primary diagnosis. The majority of these hospitalizations occurred in medical facilities in the five most populous Metro-Atlanta counties. Hospital charges resulting from asthma in Georgia are approximately \$59 million dollars annually. There is evidence in the research literature that asthmatic persons are at increased risk of developing asthma exacerbations with exposure to environmental factors, including PM<sub>2.5</sub>. Thus, HELIX-Atlanta is focusing on methods for characterizing population exposure to PM<sub>2.5</sub> for the Atlanta metropolitan area that could be used in ongoing surveillance.

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Implementing The Tracking Network

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